TRANSACTIONS OF SOCIETY OF ACTUARIES
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ACCOUNTS AND EXPENSES

A. What methods are used for classifying and analyzing expenses? How have the results been used to initiate an effective control of expenses?

B. What new accounting and office procedures have been devised, and what procedures have been discontinued, with a view to reducing expenses?

MR. J. W. HAHN stated that the Commonwealth is a combination company having two agency departments, Industrial and Ordinary, and five principal lines of business: (1) Weekly Premium and (2) Monthly Debit Ordinary, these two sold exclusively by the Industrial Agency Department; (3) "Regular" Ordinary sold by the Industrial Agency Department; (4) Regular Ordinary, sold by the Ordinary Agency Department; (5) Group, which is sold by both Agency Departments.

For each of these five lines of business operating statements are prepared tracing out their contributions to surplus, and in the case of the two "Regular" Ordinary lines the statement is broken between first year and renewal business.

Direct expenses are charged to the proper line of business on the general ledger. Certain other expenses are charged to a composite of the three lines of business sold by the Industrial Agency Department and are allocated to the individual lines by analysis. Direct investment expenses are charged to the investment line, and net investment income is credited by line of insurance. All other expenses are charged to an "unallocated" line which is distributed by analysis. Thus there are eight lines of business categories of expense in the general ledger.

The principal tools used in analyzing indirect expenses are the time study and transaction count. In some cases, through lack of more precise knowledge, expenses are allocated by formula.

The matter of Home Office expense control is studied on the basis of departments or sections of the company rather than by line of business.

The most complete work on expense analysis and control has been done on field expenses in their Ordinary Agency Department. Here controllable expenses as contrasted with contractual expenses are emphasized. Aside from the obvious factor of mortality, it seems that controllable expenses and the amount of new business produced have the greatest influence on earnings. A budget, by Branch Office, of such expenses as can be allocated to the branches and an over-all budget for the entire Ordinary Agency Department are set up, and actual performance is measured against that budget.

Considerably less has been done in the matter of control of "controllable" expenses in the Industrial Agency Department because of the greater size and complexity of the problem. Expenses are allocated but no budgets have been set up.

MR. H. RAYMOND STRONG said that if gross premium calculations make a first year allowance for Branch Office expense of \$10.00 per \$1,000 of paid business or some similar allocation, this allocation can be used as a criterion for Branch Office performance.

The Combined American of Dallas makes a monthly report for each Branch Office showing the amount of paid business for the month and showing total Branch Office overhead under the following headings: (1) rent, (2) salaries, (3) postage and expenses, (4) sales promotion, (5) books and periodicals, (6) telephone and telegraph, (7) furniture and fixtures, (8) miscellaneous, (9) travel, and (10) debit balances charged off. From this report are determined overhead cost ratios for each \$1,000 of paid business for the month and for the year to date.

This system has the advantage of definiteness and simplicity, and it fits readily into an incentive program. He pointed out that this system will have a disadvantage, however, if an appreciable amount of Accident and Health business is marketed through the same Branch Offices, due to the difficulty of allocating Branch Office expenses between the two lines of business. It would seem possible, however, that health and accident premiums could be constructed so as to give a comparable unit of measurement.

He felt it was not too important that the criterion for judging these cost ratios be absolutely accurate according to premium calculations, since the primary purpose is to establish a base point from which to push these costs down.

MR. G. N. WATSON reported that an investigation of the theoretical aspects of the flow of work through the various operations of the Policy Change Department of the Crown Life had resulted in a particular system of "carry-over control" designed to increase the productivity of the department. There had been complaints that policy changes took too long, but by all known standards of measurement the department appeared to be operating efficiently.

The problem was attacked by determining the factors which measure the average length of time for one unit of work to pass through the entire department. As a model, a department having n operations and completing N units of work per day was taken. It employed P persons and the total carry-over in the department, being the amount of work on hand at any moment of time, was C. It was assumed that at any moment of investigation all of these factors were constant and that all these factors remained constant while a unit of work was passing through the n operations.

The average length of time for one unit of work to pass through the n operations consisted of three parts. The first, being the actual length of time if there were no carry-over, was equal to P/N. The length of time introduced as a result of carry-over was C/N. The third factor is introduced if all the work enters the department at the beginning of the day rather than throughout the day; this is the average time which elapses before a particular unit is handled and is equal to half a day. The formula for the average length of time for one unit to pass through the department is then $[(P + C)/N] + \frac{1}{2}$.

In this expression the predominant factor is carry-over. This leads one to a system of "carry-over control" which can reduce carry-over as much as possible. The system adopted was as follows: The department was set up so that there were sufficient clerks at each operation to finish N cases in one day. Clerks were not allowed to have a residue of work from the previous day; each day's work was finished that day without overtime. Each clerk was allotted his full capacity by increasing his load if for two successive days he finished early, or decreasing the load if for two successive days he did not finish his allotted work. Thus a basis of comparison of the abilities of different clerks was effected.

This system was put into operation and the result was that the work assigned was between one-third and one-half greater than that performed previously. Each person was assigned the same amount of work regardless of capacity and each person completed his assignment. The carry-over, which was now a department carry-over rather than the sum of individual carry-overs, dropped as more work was performed.

Two results which followed were: (1) the poorer grade clerk kept up with the best grade clerks but mistakes appeared in his work which obstructed the efficiency of clerks in the next operation; (2) dissatisfaction crept into the department because the clerks felt that their jobs were insecure when they had nothing to do. This, however, was remedied when the system was accepted as permanent and the staff reduced. The net effect of the "carry-over control" system was that the average time required to make a policy change was reduced by two-thirds and total salaries were reduced by 16%.

In considering this system one should notice that while the approach was theoretical the results were heavily dependent on the work attitude of the employee. Success of the plan depends on (1) the allocation of specific work to an employee which gives him a definite daily objective, and

(2) recognition of the important effect of carry-over on resulting efficiency.

MR. G. T. PRENTICE stated that in making the Imperial Life's expense analysis the basic principles set out in L.I.A.M.A. reports, "Keeping Agency Operations Profitable" and "Measuring Agency Profit," were followed. Cost estimates were made in each case by the person best able to deal with that particular expense item. The individual employee completes a form which estimates the time spent on various types of work. The planning section at the Home Office summarizes this information for each branch on another form. A Branch Office expense form is completed by the Branch Secretary or cashier. Other Branch Office expenses such as rent, stationery, etc., are assessed at the Home Office.

The expense breakdowns for the preceding year are combined for the whole company and also for groups of branches which should show similar characteristics. All expenses are divided into acquisition and renewal. Acquisition expense rates are calculated on two bases: (1) the cost per $1,000 paid for, and (2) the cost per $100 first year premium. Renewal expenses are calculated for (1) cost per renewal collection, and (2) cost per $100 renewal premium. Two analyses are then set up comparing figures for the two latest calendar years. One deals with the individual branch, the other shows the average expense rates for each group of branches and for the company. These comparisons are then sent out to each Branch Office along with its own analysis. It is pointed out that these analyses should be conducted yearly rather than on the basis of spot checks from time to time.

Budgeting of the expenses of different branches has been avoided. Some of the reasons for this are: (1) the danger that a budget will become a minimum as well as a maximum, (2) in certain cases a budget may interfere with the economic expansion of a branch's operations, (3) branch managers will compare notes and consequently some will be dissatisfied, (4) managers should know local conditions better than the Home Office does and should be able to exercise their judgment.

The Home Office expense analysis is based on the L.O.M.A. report, "Life Office Cost Analysis Manual of Procedure." Estimates are made as to the time spent by different clerks on various jobs, and the job breakdown is such that division into acquisition and renewal expenses can be readily made. Expense rates are calculated where possible on the same bases which are used for the Branch Office analysis, and other Home Office expenses are designated as insurance maintenance, investment or general overhead. The former is assessed in terms of amount in force while the other two are assessed in terms of $100 of assets.

Already good results have been achieved from budgeting of certain Home Office items. For example, premium receipts have been discontinued except upon request.

MR. HUGH G. JOHNSTON felt that the elementary approach to the question of expense is quite often the better one; expense studies are important but the real objective is cutting expenses.

Home Office expenses of his company are divided by departments, and each month the departmental manager is given a statement of the allocation of expenses to his department accompanied by the budget for that department in the current year to date. The results of the first year of operation on a budget have been very wonderful.

Their greatest success in cutting expenses has probably been in connection with payment of commissions. Once a year when the contracts are renewed all the commissions for policies which will fall due during the ensuing year are totaled and divided by twelve, and the agent is paid at that monthly rate for the next twelve months. This cuts down considerably the accounting entries made in the Branch Office.

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UNDERWRITING

A. To what extent can small companies write substandard business successfully? Should substandard term insurance be written? If so, up to what table rating should risks be accepted? What conversion option should be included?

B. Is coinsurance or yearly renewable term reinsurance more satisfactory, and does this depend on the characteristics of the principal policy? What are the advantages and disadvantages of reinsurance pools among small companies?

MR. E. F. ESTES felt that substandard insurance can be written successfully provided that there are available adequate facilities for handling such cases. Particularly important are a trained underwriting staff and an agency force soliciting a good class of business in general. Reinsurance facilities help considerably in developing underwriting skill and preventing unwise selection. He felt that substandard term could be profitably written if it is actively solicited, but not if the demand originates with the customers. Longer term policies are issued by his Company up to 400% extra mortality basis, generally with the provision that extended insurance will not be available on conversion.

MR. G. H. AMERMAN also spoke in favor of the issuance of substandard under adequate safeguards. His Company does not issue substandard term insurance but will issue substandard family income.

MR. A. E. ARCHIBALD also spoke in favor of substandard business for a small company and quoted figures covering the Volunteer State Life issues of 1926 through 1945 which indicated their substandard experience was as good as the standard for the years 1942 to 1945. His Company currently issues about 10% of its adult business substandard but does not issue substandard term. They will, however, occasionally issue term with aviation extra for otherwise standard cases.

On Part B of the question he felt that yearly renewable term has the advantage of being mechanically easier. Possibly coinsurance is more satisfactory on the lower premium forms.

MR. G. W. PICKERING mentioned that the Home Life decided to issue substandard family income because of the number of otherwise desirable cases, solicited on a planned estate basis, which had had to be declined. They have issued up to Table D (100% extra mortality) on decreasing risk types and have found experience so satisfactory that they are now issuing family income on Tables C and D without restrictions.

MR. M. A. HOLZER also advocated the controlled sale of substandard insurance and stated that his Company will sell Term to 65 up to 400% extra mortality basis without conversion options. Short-term plans are only issued standard. He gave statistics covering recent issues of his Company indicating that 16% was written substandard, a quarter of which was above 50% extra mortality basis. Substandard cases had twice as high a not-taken percentage, and two-thirds of the substandard was issued under age 40.

MR. G. E. CANNON felt that the primary danger in substandard term was antiselection under the conversion option.

On section B he described a reinsurance pool of four companies including his own which has been operating for twenty-two years. The principle of the pool is automatic reinsurance on the yearly renewable term basis uniformly distributed among the companies. He mentioned several advantages, including a better quality of insurance received, reduced cost of reinsurance (due to the profit sharing element), broader underwriting experience and more flexible reinsurance facilities. Disadvantages include the necessity of dealing with several companies, inferior underwriting facilities compared to the larger companies and higher cost of operation. They have obtained reinsurance through this pool at about 75% of the usual cost of reinsurance.

MR. J. C. WITTLAKE discussed the relative merits of coinsurance and yearly renewable term insurance and mentioned a third type, "modified coinsurance," in which the original company retains the reserves. This is used when insurance laws prohibit deduction of the reinsurance reserves by the ceding company. He felt that coinsurance would only be useful in keeping new business surplus drains at a minimum or in sharing a company's investment and surplus distribution problems. Yearly renewable term is far superior for simplicity of operation. A favorable result of participation in a reinsurance pool is the resulting increase in volume of insurance. Disadvantages may arise because of differences in underwriting practice or lack of balance between receipts and cessions.